



# LEVEL FOUR STUDENT TRAINING COURSE

Revised 9/1/99

# UNIT ONE

## I. Instructor Credentials

Information about the credentials to instruct the Level Four Personal Protection Officer Course including TCPS instructor approval number and the school approval number.

## II. Options in Personal Protection

A. The personal protection officer has three basic options in protecting their client in a threat situation:

### 1. Escape /Evade

#### a. Non-event

- 1) Avoid the incident or threat entirely by pre-planning and developing good intelligence/information prior to assignment
- 2) Knowing the building, grounds, part of town, geographic area you will be working in

#### b. Know your available routes of escape

### 2. Submission/Passive resistance

#### a. do not act until acting is to your advantage

#### b. maintain defensive posture

### 3. Active resistance

#### a. untrained active resistance

1. uses strength against strength
2. you cannot always be stronger

#### b. trained active resistance

1. uses strength against weakness
2. utilizes accuracy power and speed

#### c. natural weapons –

#### d. practice in non-stressful environment

# UNIT TWO

## RULES TO EMPLOY IN PERSONAL PROTECTION

### I. Avoidance

#### A. Pre-planning and advance work

##### 1. Develop information as to

- a. Safe routes and alternatives
- b. Building or site layouts
- c. Potential hazards and threats already present
- d. Any information known specifically to local persons

##### 2. Coordinate with local authorities

- a. Develop contacts that can help you in planning and carrying out your assignment

##### 3. Build a client profile

- a. Personal and family history
- b. Lifestyle –
- c. Religious and political preferences
- d. Media exposure and notoriety
- e. Past history of incident
- f. Potential for future incidents

1) Terror

2) Kidnapping

3) Assault (personal and  
work place violence)

4) Other (burglary, robbery,  
threat letters, etc.)

g. Analysis of general threat to specific  
individual

4. Focus on the details

a. Who, what, when, where, why, how  
and with whom?

b. What are the potential threats?

c. How many people will you use?

d. Who is doing the planning?

e. These are just a few examples

B. Security consciousness

1. Anticipate threats and hazards while  
protecting client

2. Have a back up plan

C. Understand your assignment

1. Your primary and only assignment is the  
safety and welfare of your client

2. You should not be involved in dealing with any threat or altercation unless it directly involves getting your client to a safe location

3. When you involve yourself with a potential attacker you are distracted from protecting your client. and cannot do so effectively while so involved

## II. Trust your intuition

A. If it looks, smells, tastes, sounds or feels suspicious you must treat it as a potential threat and act accordingly

## III. Reverse the flow of fear and intimidation

A. Be and act alert and ready

1. Potential threats will be less inclined to act if you are ready to respond

8. Maintain a defensive position

C. Make eye contact with potential threats

D. Your presence is often enough to reverse the flow of fear and intimidation without having to act

## IV. Maximize the use of the element of surprise

A. Limit the amount of information being put out

1. Schedules

2. Plans

3. Addresses

4. Telephone numbers

5. Family members/associates

B. Limit publicity surrounding client if possible

1. Weddings/engagements

2. Deaths/funerals

3. Graduations

4. Promotions/raises

5. Controversies

C. Don't be predictable

1. Vary schedules

2. Vary routes

3. Vary habits

4. Vary locations visited

a. Restaurants

b. Clubs

c. Resorts

d. Hotels

V. Never turn your back on danger - face the threat or potential threat

A. Your client's life may depend on it



B. Your life may depend on it

C. A and B should not be viewed as separate situations

D. You will be able to control the situation or threat better by handling it in a professional and well-trained manner

E. Do not dismiss a perceived potential threat as being imagined

VI. Action always prevails over reaction

A. By anticipating a threat and through good planning and security consciousness you may be able to act first before the threat is carried out - for example:

1. Seeing a suspicious person or vehicle and changing routes

2. Pre-planning an event with enough depth of protection to catch a potential threat before it gets near your client

B. It takes a moment for a person to react to another person's action

C. Know ahead of time what you and your client will do in a threat situation

1. Training

2. Planning

3. Practice in a non-stress environment

a. Play the "what if?" game

4. Gain the trust and confidence of your client

a. Communication

1) Discuss with your client what he or she will do in the event of a threat or hazard

b. Ethics, Demeanor and Professionalism

1) Conduct yourself in a professional and ethical (moral) manner

VII. Distance is insurance - maintain a defensive cocoon

A. Rings of Protection

I. Outer perimeter

a. Technical aids

1) Alarms

- 2) Cameras
- 3) Telephones & radios
- 4) Computer

b. Protection Personnel

- 1) Local authorities
- 2) Protection team

c. Physical barriers

- 1) Buildings & walls
- 2) Crowds of people
- 3) Furniture
- 4) Vehicles

2. Middle perimeter

a. Technical aids

- 1) Alarms
- 2) CCTV cameras
- 3) Telephones & radios
- 4) Computer

b. Protection Personnel

- 1) Local authorities

2) Protection team

c. Physical barriers

1) Buildings & walls

2) Crowds of people

3) Furniture

4) Vehicles

3. Inner perimeter

a. Technical aids

1) Alarms

2) CCTV cameras

3) Telephones & radios

4) Computer

b. Protection Personnel

1) Client protection team

c. Physical barriers

1) Buildings & walls

2) Crowds of people

3) Furniture

4) Vehicles

B. Personal distance from unarmed threat

1. Minimum of thirty (30) feet

C. The most powerful tool you have is your brain

1. Think ahead – anticipate
2. Plan
3. Be able to improvise and adapt to changing circumstances

VIII. Keep fear in perspective

A. Controlling your fear in a threat situation is absolutely necessary

1. Allows you to think clearly
2. Allows you to focus on the assignment

B. Control fear

1. Training

a. You will have a plan of action for the circumstances at hand

b. You will have experienced what is likely to occur

2. Anticipation of the threat

a. Make surprise less likely

b. Allows you to make a plan before threat occurs

IX. REMEMBER THE MOST IMPORTANT RULE- DISTANCE IS INSURANCE

# UNIT THREE

## THE FORCE CONTINUUM - AN ACADEMIC STUDY

I. There are several levels of force within the force continuum.

A. Within each of these levels there are sub-levels.

1. These can be defined in terms of least to greatest within each level and can be demonstrated as such.

II. Command presence

A. Least intrusive / aggressive use of force

1. Mere presence of protection officer(s) as a deterrent

a. Professional demeanor

b. Alert attitude

2. Protection officer(s') location or position in relation to client

3. Level of visibility

4. Mode of dress

5. Defensive postures

a. Careful position

b. Fighting stance

B. Does not require direct interaction with potential threat

III. Verbal tactics

A. Next level of force continuum



B. Requires interaction with potential threat

C. Sub-levels of verbal tactics

1. Polite and Gentle request

a. "Pardon us, please."

2. Firm request

a. "Step aside, please."

3. Firm direction

a. "Move aside"

4. Direct order

a. "Move!"

5. Forceful command

a. "BACK ! BACK! BACK!"

D. Usually combined with command presence

IV. Empty hand control (soft)

A. Next level of force continuum

B. Involves contact with threat

C. Sub-levels of Empty Hand Control (Soft)

1. Gentle hand on shoulder, back or elbow  
to move threat in a specific direction

2. Firm hand on shoulder or elbow to move threat in a specific direction

D. Combined with verbal tactics and command presence

V. Empty hand control (hard)

A. Next level of force continuum

B. Involve control target

1. Strikes

2. Kicks

C. Control targets include

1. Side of neck (brachial plexus)

2. Backside top of shoulder

3. Center mass of leg

4. Center mass of arm

5. Center mass of body (fleshy pad of stomach)

6. Upper chest area

VI. Intermediate force

A. This level of force is between control tactics and deadly force

B. Intermediate force usually involves some form of equipment

I. Oleoresin Capsicum

2. ASP Baton
3. PR-24 Baton
4. Monadock

## VII. Deadly force

### A. Defined

I. Any force that can reasonably be expected to cause serious bodily injury or death

### B. Empty hand (Survival targets)

#### I. Strikes, kicks, stomps to

- a. Temple
- b. Nose
- c. Jaw line
- d. Mastoid area
- e. Base of skull
- f. Groin
- g. Back and side of neck
- h. Solar Plexus and ribs
- i. Throat
- j. Eyes

k. Stomach and abdomen

l. Arch of foot

B. Use of firearm or other deadly weapon

VIII. Totality of circumstances affecting use of force

A. Circumstances of the threat situation will determine

1. The level of force to be used

2. What combinations of the force continuum are appropriate for the situation

3. What degree of escalation of force is appropriate for the situation

IX. Evaluation and testing over units 1, 2, and 3

# FORCE CONTINUUM

LEVELS OF CONTROL	LEVELS OF RESISTANCE	VARIABLES
1. PRESENCE	1. PSYCHOLOGICAL INTIMIDATION	TOTALITY OF THE CIRCUMSTANCES
2. VERBAL	2. VERBAL NON-COMPLIANCE	ENVIRONMENTAL CONDITION
3. EMPTY HAND CONTROL A. SOFT B. HARD	3. PASSIVE RESISTANCE	AGE, SIZE, SEX, SKILL
4. INTERMEDIATE WEAPON A. SOFT-QC B. HARD-ASP	4. DEFENSIVE RESISTANCE	REACTION TIME
	5. ACTIVE AGGRESSOR	
	6. AGGRAVATED ACTIVE AGGRESSOR	
5. DEADLY FORCE		

INEFFECTIVE FORCE DOES NOT JUSTIFY EXCESSIVE FORCE

# UNIT FOUR

# UNARMED DEFENSIVE TACTICS

## I. Physical Training A. Defensive postures

### I. Two positions from which defensive techniques should be executed

#### a. Careful Position

1) Body completely bladed

2) Hands up (above solar plexus) in a non-threatening position

3) Feet slightly wider than shoulders with knees flexed

#### b. Fighting Stance

1) Body completely bladed

2) Hands up in threatening position (clenched fists)

3) Feet slightly wider than shoulders with knees flexed

## B. Hammerfist

### I. Weapon surface

a. Outside edge of fist including outer forearm

### 2. Weapon action

a. Front side technique

1) Comes from the ear

2) Action from the elbow

### 3. Target areas

#### a. Control Targets

1) Side of neck

2) Backside top of shoulder

3) Center mass of arm

4) Center mass of body (Fleshy pad of stomach)

#### b. Survival Targets

1) Temple

2) Nose

3) Jaw line

4) Mastoid area

5) Base of skull

6) Groin

7) Back and side of neck

8) Throat

9) Breast area on a woman



10) Solar plexus and rib area

11) Stomach and abdomen

### C. Inner Forearm Strike

#### 1. Weapon Surface

a. Inner forearm bone

b. DOES NOT INCLUDE THE FIST

#### 2. Weapon Action

a. Back side technique (non-leading arm)

b. Lead foot steps toward target

c. Back hand goes out beside target 12-18 inches

d. Hand turns over and arcs into target area

#### 3. Target areas

a. Control Targets

1) Side of neck

2) Center mass of arm

3) Center mass of body (Fleshy pad of stomach)

b. Survival Targets

1) Temple

- 2) Nose
- 3) Jaw line
- 4) Mastoid area
- 5) Base of skull
- 6) Groin
- 7) Back and side of neck
- 8) Throat
- 9) Breast area on a woman
- 10) Solar plexus and rib area
- 11) Stomach and abdomen

#### D. Palm Heel Strike

##### 1. Weapon Surface

- a. Back of hand flat with back of wrist; then
- b. Keep fingers together and thumb next to hand; then
- c. Bend the hand back so that palm faces the target and is exposed; then
- d. Weapon surface is the hard bottom portion of the palm of the hand

##### 2. Weapon Action

- a. Penetrating/Piston action into the target

b. Ramrod is the forearm bones

### 3. Target areas

#### a. Control Targets

1 ) Side of neck

2) Center mass of body (Fleshy pad of stomach)

#### b. Survival Targets

1) Temple

2) Nose

3) Jaw line

4) Mastoid area

5) Base of skull

6) Groin

7) Back and side of neck

8) Throat

9) Breast area on a woman

10) Solar plexus and rib area

11) Stomach and abdomen

## E. Elbow strikes

### 1. Back-hand elbow strike

#### a. Weapon Surface

- 1) Forearm pulled tight against bicep
- 2) Impact with the flat portion of the upper arm behind the point of the elbow

#### b. Weapon Action

- 1) Same as the hammer fist

### 2. Fore-hand elbow strike

#### a. Weapon Surface

- 1) Forearm pulled tight against biceps
- 2) Impact with the flat portion of the forearm in front of the point of the elbow

#### b. Weapon Action

- 1) Same as the inner forearm strike

### 3. Target areas

#### a. Control Targets

- 1) Side of neck
  - 2) Center mass of arm
  - 3) Center mass of body (Fleshy pad of stomach)
-

## b. Survival Targets

- 1) Temple
- 2) Nose
- 3) Jaw line
- 4) Mastoid area
- 5) Base of skull
- 6) Groin
- 7) Back and side of neck
- 8) Throat
- 9) Breast area on a woman
- 10) Solar plexus and rib area
- 11) Stomach and abdomen

## F. Knee Weapon

### 1. Weapon Surface

- a. Flat surface of the leg above the knee

### 2. Weapon Action

- a. Impact with the flat area of the leg just above the knee cap
- b. Bring the foot of the impacting knee to the

knee of the standing leg

c. Grab the person being kneed

3. Target areas

a. Control Targets

1) Center mass of leg

2) Center mass of body (Fleshy pad of stomach)

b. Survival Targets

1) Groin

2) Body and face (If head is down)

G. Quarter Kick

1. Weapon Surface

a. Foot position is foot pointed with toes pointed and ankle locked

b. Impact with thick back part of foot

2. Weapon Action

a. Step toward target

b. Foot rotates 3/4 turn

c. Kicking foot passes non-kicking knee

### 3. Target areas

#### a. Control Targets

- 1) Center mass of leg
- 2) Center mass of body (Fleshy pad of stomach)

#### b. Survival Targets

- 1) Groin
- 2) Body and face (if head is down)
- 3) Knee

### H. Foot Stomp

#### 1. Weapon Surface

- a. Foot position is foot drawn back with toes drawn back and the ankle locked
- b. Impact with the bottom, outside edge of the foot

#### 2. Weapon Action -

- a. Find the shin
- b. Push down the shin doing as much damage as possible
- c. Flatten the bones on the top of the foot to the floor

### 3. Target areas

#### a. Control Targets

1) None

#### b. Survival Targets

1) Top of feet

## I. Piston Kick

### 1. Weapon Surface

a. Foot position is foot pulled back with the toes pulled back and the ankle locked

b. Impact with the heel and the outside edge of the foot

### 2. Weapon Action

a. Step toward target

b. Kicking foot passes non-kicking knee

c. Penetrating/Piston action into the target

### 3. Target areas

#### a. Control Targets

1) Center· mass of leg

2) Center mass of body {Fleshy pad of stomach}

#### b. Survival Targets



1) Groin

2) Knee

## J. Side Kicks

### 1. Back Leg Side Kick

#### a. Weapon Surface

1) Foot position is foot pulled back with the toes pulled back and the ankle locked

2) Impact with the bottom outside edge of the foot

#### b. Weapon Action

1) Step toward target

2) Kicking foot passes non-kicking knee

2) Body turns over and the kick goes out the side of the body

4) Penetrating/Kicking action

#### c. Target areas

1) Control Targets

a) Center mass of leg

b) Center mass of body (Fleshy pad of stomach)

## 2) Survival Targets

a) Groin

b) Knee

## 2. Lead Leg Kick

### a. Weapon Surface

1) Foot position is foot pulled back with toes pulled back and the ankle locked

2) Impact with the bottom outside edge of the foot

### b. Weapon Action

1) Kicking foot comes up to the non-kicking knee

2) Body turns over and kick goes out the side of the body

3) Penetrating/Piston action into the target

### c. Target areas

#### 1 Control Targets

a) Center mass of leg

b) Center mass of body (Fleshy pad of stomach)

#### 2) Survival Targets

a) Groin

b) Knee

### 3. Step Through Side Kick

#### a. Weapon Surface

1) Foot position is foot pulled back with toes pulled back and the ankle locked

2) Impact with the bottom outside edge of the foot

#### b. Weapon Action

1) Variation of the lead leg kick

2) Back foot slides up to front foot

3) Kicking foot comes up to non-kicking knee

4) Body turns over and the kick goes out the side of the body

5) Penetrating action into the target

#### c. Target areas

##### 1) Control Targets

a) Center mass of leg

b) Center mass of body (Fleshy pad of stomach)

## 2) Survival Targets

a) Groin

b) Knee

## K. IO Level (Critical Situation) Techniques (Responses)

### 1. Throat Attack (Tiger's Mouth)

#### a. Weapon Surface

1) Hold your hand out in front of you as though you were grabbing a soda can

2) Webbing of the thumb and forefinger should line up with the inner forearm bones, forming a "Y"

#### b. Weapon Action

1) Penetrating/Piston action into the target

2) Fingers lock behind the muscles on the side of the neck

3) The tip of the nail of the thumb goes behind the trachea (wind pipe)

4) Offset the trachea - crushing it against the palm and fingers

#### c. Target area (survival target only)

1) Throat

### 2. Eye Attack (Eye hand)

a. Weapon Surface

1) Back of the hand flat with the back of your wrist

2) Fingers spread as wide as possible, thumb down

b. Weapon Action

1) Penetrating/Piston action into target

2) Tips and nails of fingers into the eyes with the thumb into the soft area under the jaw behind chin

3) Try to close your hand in the back of the mouth

c. Target Area

1) Eyes

L. Head Weapon

1. Front of Head

a. Weapon Surface

1) The curved portion of the skull high on the forehead

b. Weapon Action

1) Rock the head as far back as the neck will allow

2) Bring the chin to the chest

c. Target Areas

1) Nose

2) Soft portion of the side of the head

2. Back of Head

a. Weapon Surface

1) The curved portion of the skull on the back of the head

b. Weapon Action

1) Bring the chin to the chest

2) Rock the head back

c. Target Areas

1) Nose

2) Soft portion of the side of the head

M. Down Fighting - an officer in a down fighting situation is likely to be in survival mode

I. Piston Kick / Pivot Position

a. Weapon Surface

1) Foot position is foot pulled back with the toes pulled back and the ankle locked

2) Impact with the bottom outside edge of foot

b. Weapon Action

1) Hands in front of face with elbows touching knees

2) One leg extended - the other drawn back

3) To pivot - hands down on either side push in the direction needed

c. Target Areas

1) Knees

2) Groin

3) Body

4) Throat

5) Head and face

2. Side Kick / Pivot Position

a. Weapon Surface

1) Foot position is foot pulled back with the toes pulled back and the ankle locked

2) Impact with the bottom outside edge of the foot

b. Weapon Action

1) Kick only with the top leg

2) Hands in front of face – elbows touching knees

3) One leg extended the other drawn back – exchange

4) To pivot-hands down on same side of body, push in direction of the back

c. Target Areas

1) Knees

2) Groin

3) Body

4) Throat

5) Head and face

3. Back Kick - Pivot Position

a. Weapon Surface

1) Foot position is foot pulled back with the toes pulled back and the ankle locked

2) Impact with the heel and outside edge of the foot

b. Weapon Action

1) On hands and knees



2) Kick goes out to the back

3) To pivot- use your knees as feet

c. Target Areas

1 Knees

2) Groin

3) Body

4) Throat

5) Head and Face

4. Roll

a. Each quarter turn is a down fighting pivot position

N. Proximity Firearm / Edged Weapon Response

1. Clear the Body

a. Weapon to the head

1) Feet about shoulder width apart

2) Drop - move 0% to 100%.

b. Weapon to the body

1) Feet about shoulder width apart

2) Twist - move 0% to 100%

2. Control the weapon

a. Weapon to the head

1) Double throat attack weapon so the webbing of the thumbs lifts up one on top of the other

b. Weapon to the body

1) Double throat attack the weapon - hands side by side

### 3. ATTACK

O. Standing Holds - use available weapons against available targets

1. Choking from the front

2. Choking from the rear

3. Bear hug from the front

4. Bear hug from the rear

5. Forearm choke from rear

6. Forearm choke with head lock

7. Forearm choke working against body weight

P. Deteriorated Down Fighting - Use available weapons against available targets. Once the hold is broken you are in down fighting mode.

I. Kneeling beside - choking

a. Outside leg swings up, crosses the face and

pushes into the assailants neck - driving him to the floor

2. Sitting on you - pinning your arms with their hands

a. Nothing happening to you

b. Know what you will do when the assailant releases with one hand for any reason

3. Sitting on your chest - your arms pinned - their hands free

a. Impact the spine and kidneys with knee strikes

b. Once they react grab their shoulders with your feet and ankles and pull them over backwards

4. Classic sexual assault position

a. Impact the kidneys with heel of the foot strikes

b. Once they react dig your heels in just behind the waistline and shove them over backwards

5. You face down - assailant sitting on your back - your arms pinned with their hands

a. "Lite bite" to one of their hands so that they release one of your hands; then

b. Push pinned hand forward and simultaneously bring opposite knee forward; then

c. Begin to squirm and tum underneath them attacking whatever targets are available until you can turn over

below them or they shift off of you

Q. Control Measures / Detainment Techniques /  
Takedowns

1. The key to making these work is preparatory striking

R. Augmenting Weapons

1. An augmenting weapon is any device that adds strength and rigidity to an existing weapon

a. Ball point pen

b. Scissors

c. Spoon

2. To qualify as an augmenting weapon, the device must extend beyond both sides of the fist while allowing the fist to be formed correctly

S. The Thrown "Weapon"

1. Anything that is not needed for the altercation can be thrown

a. Rings

b. Watches

c. Wallets

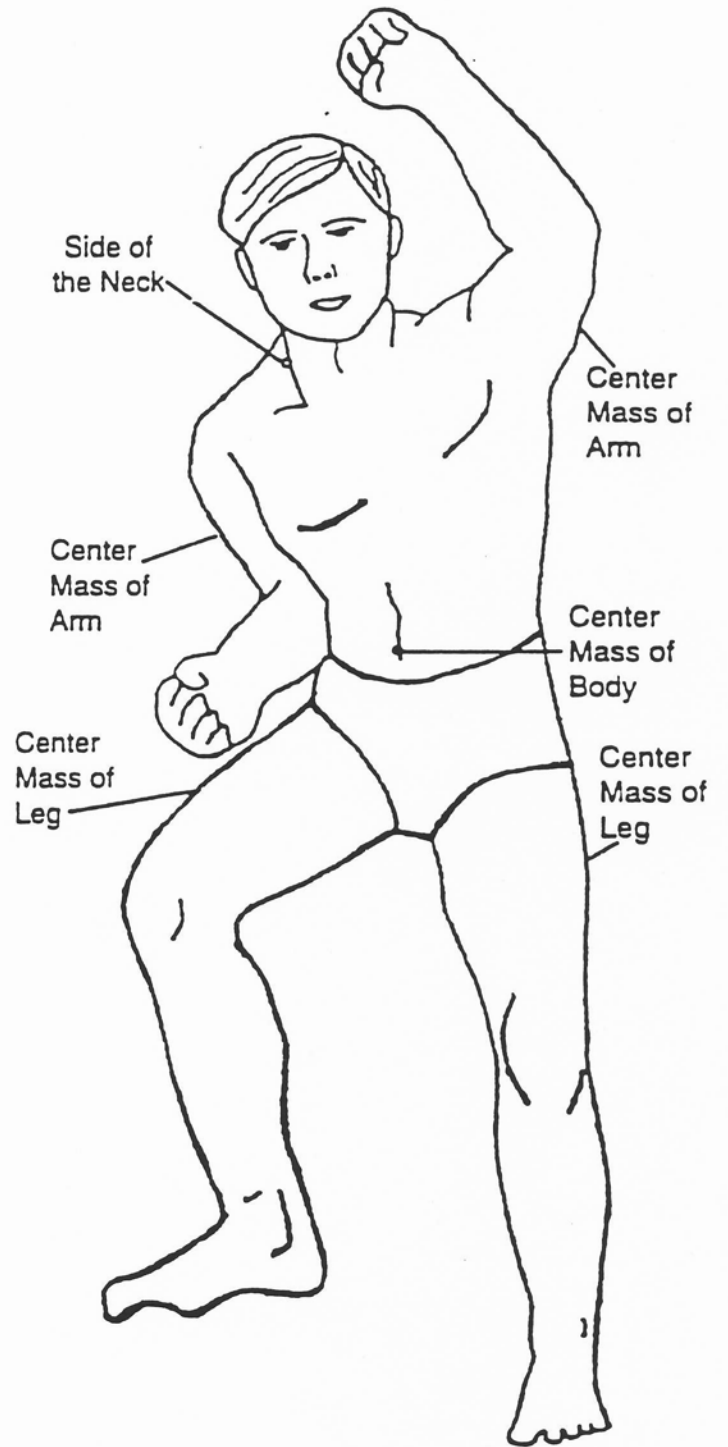
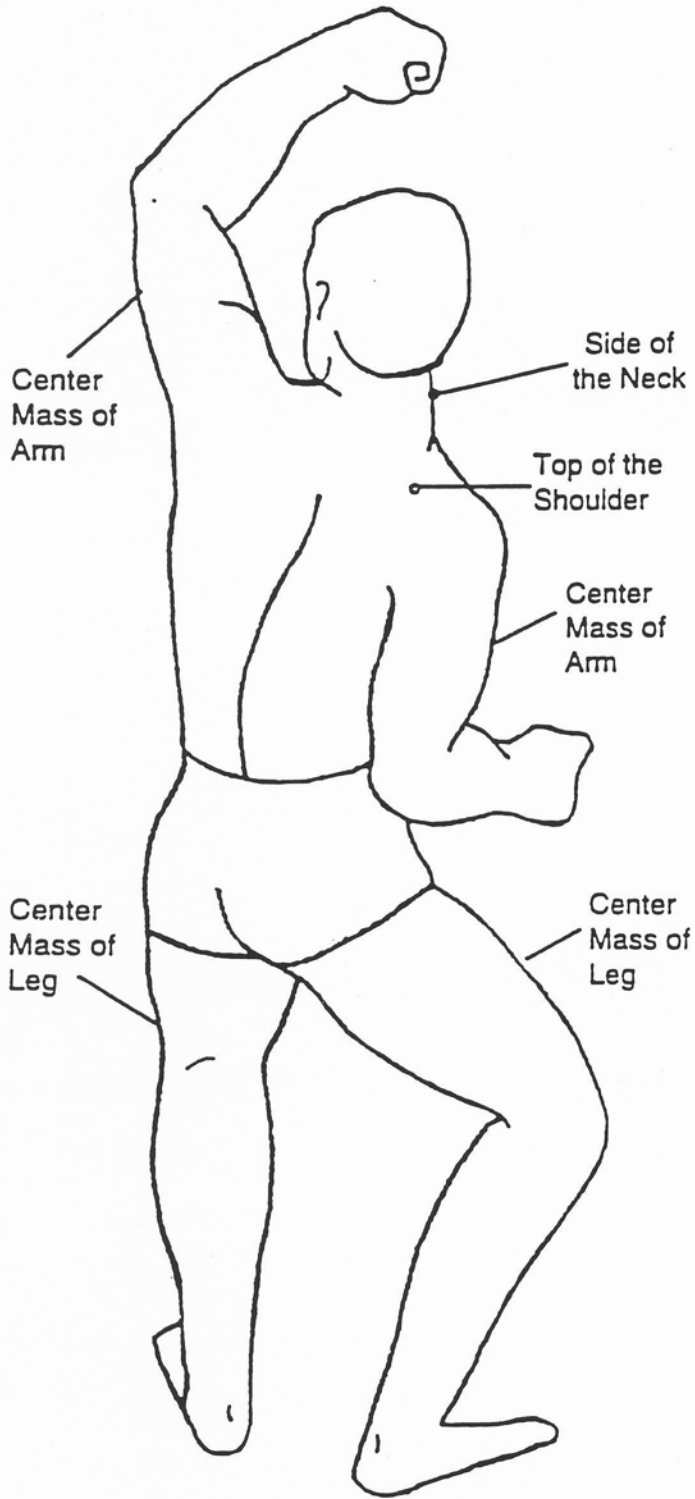
d. Shoes

e. Coins

f. Keys, etc.

Examination Over Defensive Techniques

# OFFICER TARGETS OF THE BODY



# UNIT FIVE

# OLEORESIN CAPSICUM (O.C.) AEROSOL PROJECTOR INSTRUCTION

## I. Introduction to Chemical Agents

### A. Historical Overview

1. The inception of production of chemical agents with commercial value began in the late 1800's. Soap manufacturers found that fumes from the products being manufactured had a dramatic effect on their employees, particularly in tear duct flow. These were called "weeping gases" and later were called "Tear Gas". When people were removed from the irritating fumes, they recovered, having received no permanent injury.

2. Military and law enforcement personnel became interested in the possibility of loading these irritants into ballistic ordinance. In 1912, the police in Paris, France used chemical agents to quell riots very successfully. From that point, interest in the use of these chemical agents peaked and research increased dramatically.

### B. Types of chemical agents

1. CN tear gas (Chloracetophenone [Klor-uh-see-toe-fee-known])

- a. Most popular of tear gases.
- b. Its use made commercial tear gas successful
- c. Discovered in 1869 by General Scen Grabe. CN tear gas was not widely used until World War I when the Department of Defense



realized that it was useful in battle.

d. CN tear gas was color coded "red" by the military .

e. CN tear gas is described as a lachrymator (la'-kri-may-tor) meaning that it causes specific and profuse action on the eyes resulting in excessive tear flow and temporary blindness.

f. Effects

1) Profuse flowing of tears

2) Mild nose irritation

3) Mild skin irritation

4) "Mild" panic

g. First Aid/Decontamination

1) See first aid/decontamination section

h. Viability - for use in a spontaneous response to attack

1) Takes 5 to 20 seconds to act on subject

2) Control factor is low because it may not work on a pain resistant subject

3) Cross contamination potential is high because of dispersal and volatility

2. CS tear gas (ORTHOCHLOROBENSAL-  
MALONTRILE [or-thow-klor-o-ben-sol mah-lon-trill])

a. History

1) Developed by two British scientists,  
Carson and Staughton.

2) Developed right after World War II

3) First used by the British army on the  
isle of Cyprus to quell riots

4) Successful use by the British peaked  
the interest of the U.S. Army

b. Color coded "blue" by the military

c. Described as an irritant causing redness,  
soreness, roughness and irritability of body  
parts exposed to the chemical

d. Effects

1) Involuntary closing of eyes

2) Severe pain and chest contraction

3) Uncontrollable coughing

4) Mild to intense nausea with the  
possibility of vomiting

5) Loss of coordination and balance

6) Intense panic

7) Mental disorientation

e. First Aid/Decontamination

1) see decontamination guidelines

f. Viability for use in a spontaneous response to attack

1) Takes from 10 to 60 seconds to act on subject

2) Low control factor on pain resistant subjects. Works very well WHEN it works

3) Volatile ! Has a high cross-contamination potential

3. Oleoresin Capsicum (O.C.) - Capsaicin is the heat causing agent found in O.C.

a. History

1) In 1920, Capsaicin caught the attention of chemists as a possible irritant to be used to quell disturbances during times of civil unrest.

2) During the war between India and China, the Chinese threw pepper particles into fire upwind from the Indian soldiers to act as a chemical irritant.

3) The Chinese would also dry pepper plants, grind them up and wrap them in onion skin paper. They would then carry the wrapped ground pepper on their waists for use against assailants.

4) In 1970, the "Nebulizer" was introduced. The "Nebulizer" was a flashlight with a

pepper applicator on the other end.

5) The fruit of the pepper plant from New Mexico is refined into oils and waxes. The spice industry supplies these ingredients to "pepper spray" manufacturers. Dried material from the pepper plants is ground and soaked with organic solvents. Whole mash is set out to dry. Once dried it is ground to 1 micron (1/25,000 of an inch) particles. The products are bought based on their heat value (potency).

b. Origin

1) Pepper plant in particulate form

2) OC is a natural substance as opposed to CN or CS tear gas, which are man-made

c. Color coded "orange" by military

d. OC is described as inflammatory, causing topical localized heat, redness, swelling and pain

e. Effects

1) Involuntary closing of eyes

2) Uncontrollable coughing

3) Loss of strength, stamina and power

4) Loss of coordination and balance

5) Intense panic

6) Loss of ability and/or will to fight

7) Inflammatory agent

- a) Mucous membranes
- b) Nasal passages
- c) Upper respiratory system

8) Burning sensation

9) Shortness of breath

10) Will affect people who are intoxicated or emotionally disturbed

11) Must come into contact with the eyes, nose, throat, and/or mouth to be effective

f. First Aid/Decontamination

1) Expose to fresh air

2) Expose and flush with large and continuous amounts of water

3) Remove contaminated clothes and contact lenses

4) Shower with soap (non-oily and non-perfumed soap, i.e. Ivory) and water

5) Keep subject under observation 45 minutes to 1 hour

g. Viability

1) Immediate action time. (Not always 100% effective all of the time)

2) High level of subject control

3) Cross contamination potential is relatively low

h. Solvents/Carriers

1) Act as carrier of the OC from the projector nozzle to the target

i. Propellant/Pressure

1) Nitrogen is the propellant gas used in OC

## II. Aerosol Projectors

### A. How they work

#### 1. Formulation

a. 1/2 to 3/4 filled with liquid formula

b. Rest of container is filled with propellant charge to expel the formula

c. Because the formula is liquid and has a "dip tube" style canister, the canister must be in an upright position to function properly

#### 2. Range

a. Minimum of 3 feet

b. Maximum of 10-12 feet

c. 6-8 feet tactical retreat

d. Larger sized canisters (crowd control) may reach up to 25-30 feet

3. Typical projector will deploy 25 mg of formula and propellant during a one second burst

B. What they do

1. Discharge chemical agent contained in formula

III. Reasons for selection on OC over other types of chemical agents

A. Safety

1. Non-lethal

B. Effectiveness

1. Rapid psychological reaction or response

2. Desired effect reached while using low concentration of chemical agent

3. Rapid recovery time with no long-lasting effects

C. Deliverability

1. Sufficient concentrations by delivery system acceptable to police requirements

D. Non-persistency

1. Temporary in duration of effectiveness without major decontamination problems

E. Stability

1. Stable over a wide range of temperature and storage conditions

F. Acceptability

1. Tolerated by the general public

G. Cost effectiveness

1. Cost proportionate to effectiveness

2. Competitive with acceptable alternatives

3. Reasonable in relationship to business resources

IV. Suggestions for selection

A. Develop Specifications

1. Meeting your business needs

2. Insist that manufacturers meet those needs and test the product

B. Material and workmanship

1. Pattern of particulate when sprayed

2. Must not leak when being stored or carried

3. Manufacturers guarantee each individual unit remain effective for four (4) years

C. Physical and Chemical Requirements

1. Manual should provide material safety data sheet

2. Each unit should remain effective across a wide



range of temperatures

3. No residue or leakage
4. Non-flammable
5. Individual serial numbers and dates for each unit
6. Safety flap over discharge button
7. Manufacturer should be capable of providing liability insurance

## V. Operational guidelines

### A. Set guidelines for use

1. When are new employees trained in the use of OC?
2. In-service training for current employees?
3. Train with inert and live OC
4. Train under various conditions with various deployment scenarios
5. Any personnel using OC should be exposed to OC during training

### B. Set guidelines for policy and procedure

1. Where will OC be used in the force continuum
2. Document use and decontamination procedures
  - a. Decontamination facilities

b. How long in decontamination ?

c. When should a subject be examined by a medical doctor ?

### C. Special considerations

1. Discharging OC at close range

2. Prolonged discharge on incapacitated subject

3. Discharge of large quantity in confined space

4. Discharge in the presence of infants or elderly

5. Hydraulic needle effect

a. 65 pounds per square inch (psi) on regular sized canisters

b. 40 psi on smaller canisters

6. Strategic vs. tactical use

### D. Criminal and civil liabilities

1 Chemical agents that are not OC

a. Courts have recognized humanitarian aspect of the use of chemical agents as opposed to deadly force

2. Ruled in favor of plaintiff for punitive, malicious or unnecessary use of chemical agent

3. No case involving OC has ever gone to court (to date)

4. Issues such as use of reasonable force, negligent use and intentional use are not warranted

E. Documentation

1 Always use documentation (report) after any incident involving the use of OC

VI. Canister operation

A. Effective ranges

- 1 3 feet minimum
2. 12-15 feet maximum

B. Target areas

1. Between the eyes
2. Low on the forehead so that pepper material will flow into eyes
3. Mouth
4. Nose

C. Methods of deployment

1. Use the thumb to trigger OC spray
2. Two short bursts of 1/2 to one (1) second
3. Deployment patterns
  - a. Crisscross X
  - b. Single cross \

c. Serpentine (figure 18) oo

d. High to low |

## VII. Practical exercises

A. Proper release of chemical agent

B. Tactical use of agent

## DECONTAMINATION GUIDELINES

### I. General

#### A. Complete incapacitation

1. Remove affected person from contaminated area to an open, upwind position
2. Have subject remain calm. Restrict activity
3. Major discomfort should disappear within 10 - 20 minutes

### II. Eyes

#### A. Symptoms

1. Burning sensation
2. Heavy flow of tears and mucous
3. Involuntary closing of eyes

#### B. Treatment

1. Keep eyes facing the wind
2. Do not rub eyes or apply lotions or oils
3. Tearing of eyes helps to clear them
4. If particles of agent are lodged in the eyes, wash out with large amounts of water

### III. Skin

## A. Symptoms

1. Stinging or burning sensations on moist skin areas
2. Blisters from very heavy concentrations of chemical agent.

## B. Treatment

1. Have subject sit and remain quiet to reduce sweating
2. Expose the affected areas to the air
3. Contamination can be relieved by flushing with clear water for at least 10 minutes
4. For CS tear gas, solutions of 5% to 10% sodium carbonate are better than water and only require small amounts to decontaminate.

## IV. Nose

### A. Symptoms

1. Irritation of nose tissue
2. Burning sensation
3. Nasal discharge

### B. Treatment

1. Breathe normally
2. Blow nose to remove discharge

3. Nose drops should help if discomfort is severe

## V. Chest

### A. Symptoms

1. Irritation of airway
2. Burning sensation
3. Coughing
4. Feeling of suffocation
5. Tightness in chest often accompanied by feeling of panic

### B. Treatment

1. Have subject relax and stay calm
2. Talk reassuringly to subject to prevent panic

## VI. Prisoners

A. Never spray and handcuff a subject and leave them on their stomach

1. Positional Asphyxia could occur

B. Never leave a subject unattended

X. IF SUBJECTS CONDITION IS QUESTIONABLE, SEEK MEDICAL ATTENTION

XI. Examination Over O.C.

# FORCE CONTINUUM

LEVELS OF CONTROL	LEVELS OF RESISTANCE	VARIABLES
1. PRESENCE	1. PSYCHOLOGICAL INTIMIDATION	TOTALITY OF THE CIRCUMSTANCES
2. VERBAL	2. VERBAL NON-COMPLIANCE	ENVIRONMENTAL CONDITION
3. EMPTY HAND CONTROL A. SOFT B. HARD	3. PASSIVE RESISTANCE	AGE, SIZE, SEX, SKILL
4. INTERMEDIATE WEAPON A. SOFT-QC 8. HARD-ASP	4. DEFENSIVE RESISTANCE	REACTION TIME
5. DEADLY FORCE	5. ACTIVE AGGRESSOR	
	6. AGGRAVATED ACTIVE AGGRESSOR	

INEFFECTIVE FORCE DOES NOT JUSTIFY EXCESSIVE FORCE